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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,441	05/03/2001	Sandeep K. Singhal	6020.0100	7820

7590   08/09/2006

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EXAMINER
DAO, MINH D

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<table>
<tr>
<td rowspan="2">Office Action Summary</td>
<td>Application No.</td>
<td>Applicant(s)</td>
</tr>
<tr>
<td>09/848,441</td>
<td>SINGHAL ET AL.</td>
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<td>Examiner</td>
<td>Art Unit</td>
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<td>MINH D. DAO</td>
<td>2618</td>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 May 2006*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-6,8,10-12,14,17-29,31-42* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 05/26/06 have been fully considered and are

persuasive. Therefore, the rejection has been withdrawn. However, upon further

consideration, a new ground(s) of rejection is made in view of Ramamurthy et al. (US

6,606,323).

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or

described as set forth in section 102 of this title, if the differences between the subject

matter sought to be patented and the prior art are such that the subject matter as a

whole would have been obvious at the time the invention was made to a person having

ordinary skill in the art to which the subject matter pertains. Patentability shall not be

negatived by the manner in which the invention was made.

2.   Claims 1-6,8-12,14,17,22-27,29,31-42 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Stewart (US Patent 6,452,498) in view of Calvert (US

6,526,275) and further in view of Ramamurthy et al. (US 6,606,323).

Regarding claim 1, Stewart teaches a system for delivering location-based services

(See fig.1, col. 3, lines 55-67) to mobile clients (See fig.1, item 5) in a building structure

(col. 5, lines 34-42) using short-range wireless technology (Col. 3, lines 65-67; col. 4,

lines 1-8), comprising: a plurality of short range wireless access points (items 10)

adapted to communicate with mobile clients (See fig. 1, col. 3, lines 20-45); a location

registry for tracking a location of each mobile clients (See fig. 1, item MIB; col. 4, lines

20-33; col. 6, lines 20-37); and one or more location aware service proxies, each of the

location aware service proxies adapted to receive client requests for location-based

services from the mobile clients and to deliver responses thereto, the responses

comprising location-based information generated in view of the tracked location of the

respective mobile client indicated by the location registry (See fig. 1, item 15, Network;

col. 5, lines 11-19; col. 5, lines 43-67; and item 20, service and Information Provider,

col. 6, lines 49-54). However, Stewart fails to teach that the at least one of the location-

aware service proxies includes: means for receiving a DNS request specifying a host

name from a mobile clients means for determining that the requested host name

corresponds to a location- based service and means for returning an IP address of the

host name based on the client's location responsive to the determination that the

requested host name corresponds to a location-based service. Calvert, in an analogous

art, teaches a communication system responsive to a request for a particular product from the communication device, determines an approximate location of the device and whether the particular product are available in the general vicinity of the communication device (see col. 3, lines 10-26; col. 8, lines 23-47). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching of Calvert to Stewart in order to allow the user to obtain more information about the product provider by accessing their addresses or websites.

Still regarding claim 1, Stewart and Calvert, as discussed above, fail to teach that the host and the mobile client are located within a same building. Ramamurthy, in an analogous art, teaches a Local Area Network (LAN) Client-Server system, located within a building, that operates to provide services between mobile devices and their printers (see fig. 1; col. 2, lines 40-67).Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching of Ramamurthy to Calvert and Stewart in order for the server or host to serve multiple local clients located in the same building at a same time as suggested by Ramamurthy.

Regarding claim 2, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, wherein, for at least one of the wireless access point, the access point software is maintained on an adapter coupled thereto (see Stewart, col. 5, lines 19-28).

Regarding claim 3, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, further comprising at least one active client list, each of the active client lists maintained by a distinct one of the wireless access points and addresses for ones of the clients which are currently visible to the maintaining wireless access point (see Stewart, col. 5, lines 19-34, in this case, the "allow all users access to all service providers on a network or to allow selected users access to selected service providers" reads on the maintained, by one of the access points, active client list of the present invention).

Still regarding claim 3, the combination of the teachings of Stewart, Calvert and Ramamurthy fails to teach a use of the Medium Access Control (MAC) address. However, it is taken that official notice that the addresses of the clients contained in the active list of Stewart could be MAC addresses that is commonly used in LAN networks for data packet transmission. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Stewart so that it would implement MAC address to identify its users for the benefit of globally using the MAC scheme to relate LAN network users with each other.

Regarding claim 4, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, wherein the wireless access points include means for detecting an identity of a system user (see Stewart, col. 4, lines 1-8).

Regarding claim 5, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, wherein the wireless access points have means for detecting one or more mobile client characteristics (see Stewart, col. 4, lines 1-8).

Regarding claim 6, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, wherein the location registry further comprises: means for receiving notification information from the wireless access points; and means for maintaining a table listing of wireless access points associated with each of the mobile clients, responsive to the means for receiving (see Stewart, fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 8, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, wherein the one or more location aware service proxies comprise at least one of: an HTTP proxy, a WSP proxy, a DNS proxy, a message proxy and a directory proxy (see Stewart, col. 6, lines 49-54).

Regarding claim 10, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 8 wherein the message proxy includes means for filtering a list of current messages requested from a message server based upon a requesting client's location (see Stewart, col. 6, lines 49-59).

Regarding claim 11, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, further comprising a protocol proxy, the protocol proxy annotating content received from a particular one of the service proxies (see Stewart, col. 6, lines 20-37).

Regarding claim 12, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, wherein the location registry further comprises a query interface with which the protocol proxy can obtain location information about a mobile client ((see Stewart, col. 6, lines 20-37).

Regarding claim 14, the claim is the method claim, and has the same limitations as in claim 1, therefore is rejected for the same reason set forth in the rejection of claim 1.

Regarding claim 17, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a method as recited in claim 14, further comprising the step of transmitting a register notification from a selected wireless access point to the location registry upon detecting a new mobile client address on the selected wireless access point (see Stewart, fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claims 22 and 23, the claims have the same limitations as that of claim 3 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 3.

Regarding claim 24, the claim has the same limitations as that of claims 3 and claim 18 and therefore are interpreted and rejected for the same reason set forth in the rejections of claims 3 and 18.

Regarding claim 25, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a method as recited in claim 14, further comprising the step of transmitting notification information from the wireless access points to the location registry, the location registry maintaining a table listing of current access points associated with each of the mobile clients based upon the transmitted notification information (see Stewart, fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 26, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a method as recited in claim 14, further comprising the step of identifying a system user or a mobile client characteristic in the information communicated from at least one of the access points to the location registry (see Stewart, col. 4, lines 1-8).

Regarding claim 27, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a method as recited in claim 17, further comprising the step of adding an access point identifier of the selected access point to a location list for a

particular client upon receiving the transmitted registration notification (see Stewart, fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 29, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches method as recited in claim 14, wherein the providing step further comprises the steps of: generating responses to the intercepted client requests, wherein the generated responses incorporate location sensitive information; and transmitting the generated responses from the location aware service proxies to the mobile clients from which the client requests were intercepted (see Stewart, col. 4, lines 48-59).

Regarding claim 31, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a method as recited in claim 14 wherein at least one of the location aware service proxies further comprises a message proxy adapted for filtering a list of current messages received from a message server, based upon the tracked location of a particular mobile client to which the message pertain (see Stewart, col. 6, lines 49-59).

Regarding claim 32, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a method as recited in claim 14, further comprising the step of annotating content received by a protocol proxy from one of the location aware service proxies with available services (see Stewart, col. 6, lines 20-37).

Regarding claim 33, the claim has the same limitations as that of claim 3 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 3.

Regarding claim 34, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, wherein the location aware service proxy is adapted for intercepting requests of a particular type (see Stewart, col. 6, lines 49-50).

Regarding claim 35, the claim has the same limitations as that of claim 29 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 29.

Regarding claim 36, the claim has the same limitations as that of claim 25 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 25.

Regarding claim 37, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 35, wherein the determined location comprises geographic coordinates of ones of the access points with which the particular client is currently associated (see Stewart, col. 4, lines 20-33).

Regarding claim 38, the combination of the teachings of Stewart, Calvert and Ramamurthy does not mention building and room number associated with the location of the access point. However, the locations where the geographic coordinates of the

access points taught by Stewart should inherently be associated with building and room numbers of the access point in the case where the access point are within a building.

Regarding claim 39, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 1, wherein each location aware service proxy is further adapted for contacting a third-party information source to obtain information used in generating the location-sensitive information (see Stewart, col. 4, line 48-59).

Regarding claim 40, the claim has the same limitations as that of claim 11 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 11.

Regarding claim 41, the combination of the teachings of Stewart, Calvert and Ramamurthy teaches a system as recited in claim 40, wherein the available services result from a location-sensitive filtering of an available services list (see Stewart, col. 6, lines 20-37).

Regarding claim 42, the combination of the teachings of Stewart and Calvert teaches a method as recited in claim 32, wherein at least one of the available services annotations further comprises a link to one of the available services (see Stewart, col. 6, lines 20-37).

2:      Claims 18-21 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Stewart (US Patent 6,452,498) in view of Calvert (US 6,526,275), Ramamurthy
(US 6,606,323) and further in view of Lee et al. (US 6,535,493).

Regarding claim 18, the combination of the teachings of Stewart, Calvert and
Ramamurthy, as discussed above, teaches the limitations of claim 14. However,
Stewart, Calvert and Ramamurthy did not specifically mention a reverse registration
notification upon detecting a mobile departure from an access point. Lee, in an
analogous art, teaches this limitation (col. 3, lines 18-25). Therefore it would have been
obvious to one of ordinary skill in the art at the time of the invention to provide the
teaching of Lee to Stewart, Calvert, and Ramamurthy in order to reduce the network
processing keeping track of the mobile's location.

Regarding claim 19, the combination of the teachings of Stewart, Calvert, Ramamurthy
and Lee teaches a method as recited in claim 14, further comprising the step of
monitoring, by a particular one of the access points, a quantity of time elapsed since a
previous detection of traffic for each of the mobile clients which is currently considered
active by the particular one (see Lee, col. 3, lines 18-25).

Regarding claim 20, the combination of the teachings of Stewart, Calvert, Ramamurthy
and Lee teaches method as recited in claim 19, further comprising the step of defining a

mobile client departure from a wireless access point when the quantity of elapsed time exceeds a particular value (see Lee, col. 3, lines 18-25).

Regarding claim 21, the claim has the limitations as that of claims 18, 19 and 20 as mentioned above, therefore it is interpreted and rejected for the same reason set forth in the rejections of claims 18, 19, and 20.

Regarding claim 28, the combination of the teachings of Stewart, Calvert, Ramamurthy and Lee teaches a method as recited in claim 18, further comprising the step of removing an access point ID from the location list for a particular client ID upon receiving a reverse registry notification (see Lee, col. 3, lines 18-25).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D. DAO whose telephone number is 571-272-7851. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW ANDERSON can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Minh Dao   Matthew Anderson
Division 2618   Superviser AU 2618
August 02, 2006